Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

Volume 2, Number 10 **BOSTON, MASSACHUSETTS** **October, 1935**

Factory Mutual Record

The equivalent of three-months rainfall fell in one day. At Watkins Glen, N.Y., the deluge of water is shown spreading out, cutting new channels, undermining houses and washing away a railroad embankment.

Flood Waters

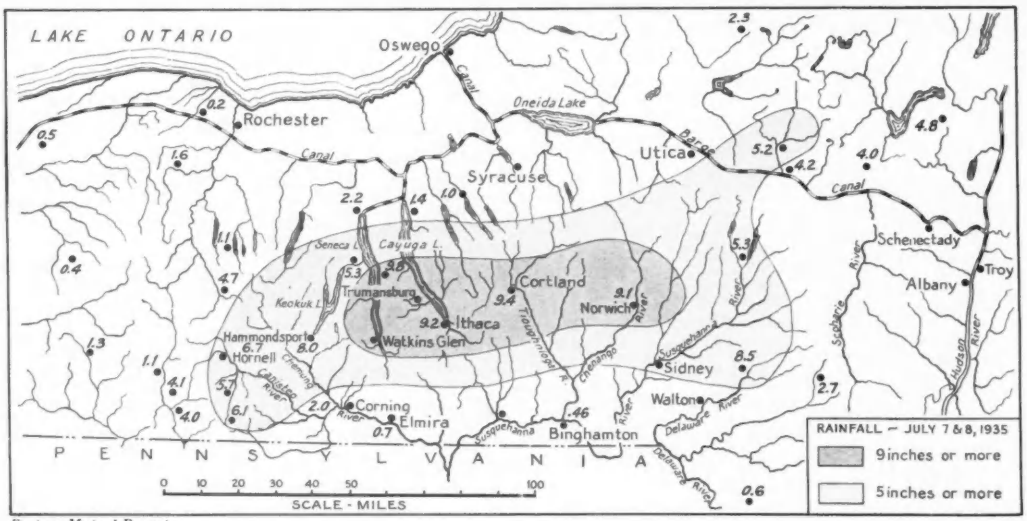
Fire Protection Maintained with Difficulty as Summer Cloudburst Descends on Area of 7500 Square Miles in Central New York State

ON July 7 and 8 an abnormal rainfall over an area of about 7500 square miles in central and southern New York State caused about 53 persons to lose their lives and a property damage estimated at 25 million dollars. Over 14 inches of rainfall was unofficially reported nine miles north of Watkins Glen. This sudden, intense down-pour quickly overflowed creeks and rivers in a wide area.

Much of the information in accompanying article is furnished through the courtesy of engineers of the Associated Factory Mutual Fire Insurance Companies' Inspection Department (Member N.F.P.A.).

Houses near the watercourses throughout the flood area were undermined, some were carried away. Cellars were flooded. Mud and silt covered many blocks in built-up sections of several towns. Debris piled high against bridges and clogged culverts. Bridges and roadbeds were washed out, crippling railroad service and making highways impassable. Much topsoil was washed away and many crops were destroyed.

Water flooded the city of Hornell from two to eight feet deep. At Binghamton, the Chenango River rose 18 feet in 10 hours, flooding the lower residential sections, carrying



Factory Mutual Record

away a bridge, undermining the river bank, and demolishing several tenements. Damage of varying extent was done in the smaller communities along the rivers.

It is not hard to believe the difficulties reported which faced the fire departments and large property owners in maintaining fire protection. The district is one served largely by volunteer fire companies, and hundreds of these found their fire protection facilities severely curtailed.

Telephone service, electric light and power and gas service were disrupted in certain localities. Breaks in electric wires and gas services caused fires. The interrupted telephone service made the summoning of fire companies difficult. Flooded roads and washed out bridges impeded response of apparatus. Water mains were broken and other water supplies with which to fight fires were put out of service.

Volunteer fire departments in several towns encountered difficult situations. At Walton, a store owner opened the basement door and turned the electric light switch. This caused a short circuit which ignited gas from a broken pipe. An explosion and fire followed, destroying three 3-story mercantile buildings in the center of the town.

The day previous the flood had broken three water mains which supplied the business district with water. Six inch mains in the business district had only a limited supply through a 3 in. by-pass, and a hose from a hydrant produced merely a trickle of water. The Walton Fire Department wasted no time trying to use the hydrant supplies but set up two pumpers where they could draft from the river. A suction supply for a booster line was also obtained from a flooded store basement.

Outside pumpers from Sidney, Downsville and Delhi, each 10 to 15 miles away, responded promptly in spite of badly washed roads, and assisted.

In Unadilla and vicinity, bridges and roads were washed out, crops and livestock were destroyed and barns and silos all but washed away by the swollen streams. The village fire siren warned the people of the flood danger as the streets turned into streams.

At Binghamton, two lines of hose, each 1300 feet long, were laid in the flooded street to extinguish a fire in a store and dwelling. Power and telephone cables crossing the river in this city were carried away with the bridge.

Water supplies were seriously crippled in several small towns and cities. The flooding of pumping stations, the breaking of reservoir mains, the washing out of hydrants, and the breaking of street mains crippled systems from one to ten days or more.

At Hornell, the earth dam of one city reservoir gave way and the water released added to the already swollen streams. The two large mains from the reservoirs to the filter plant were washed out. At Binghamton, three mains laid across the bed of the

At the Corning Glass Works (left) a glass disk, 200 inches diameter, is in process of cooling slowly over a period of eleven months for the largest telescope in the world. Waters came within 6 feet of it.

Factory Mutual Record

Chenango River were carried away. This left the west side of the city without water for about two days.

Communities along the banks of large rivers can do much to avoid the consequences of flood damage. There the rise of flood waters occurs each year, and within certain limits it can be predicted. Engineers have previous flood data and can take the flood possibilities into account in the design of bridges, water systems, power lines and important structures. In parts of the country like the New York area, excessive rainfalls are not sufficiently frequent to warrant spending large sums for absolute flood protection.

The experience of other disasters has taught the importance of designing water systems to prevent built-up sections of the community from being completely cut off from water service for fire protection. All important sections should be supplied by feeder mains from two or more directions so that if one is broken a supply may be obtained through the other. Emergency crews must have facilities and be trained to quickly plug broken mains and make emergency feeds through hose lines. Where possible, there should be duplicate sources of water, both a pumping station and a reservoir, for instance. Other factors which must receive consideration are restoration of telephone service and mutual aid arrangements to get fire apparatus into districts where the destruction of bridges may close normal means of approach.

Planning for the emergency is the principal thing, be the emergency flood, earthquake or hurricane. No section of the country is wholly free from such emergencies, and the fire department usually is the first and most important agency which goes into service.

□ □ □ □ □

The fire department at Walton, N. Y., lost these three mercantile buildings, the result of combined factors of a broken gas main, electrical short circuit and a crippled water supply.

A cement plant in which thousands of tons of rocks and debris shut down operations indefinitely.

Factory Mutual Record

Volunteer Salvage Corps Fifty-Three Years Old

FOR over a half century the Salvage Corps and Fire Police No. 1, a volunteer salvage organization of Saint John, New Brunswick, has rendered valuable service to its community. The interesting story of the organization and activities of the corps is told by its Captain, K. J. MacRae.

It was organized in 1882, an outgrowth of a group previously known as Fire Policemen, who functioned under an act passed in 1850 by the Provincial Legislature of New Brunswick. A conflagration in June, 1877, demonstrated the need of a protective body to assume charge of property, to assist the fire fighters at their work, and to maintain order among the spectators.

Acts were passed giving the salvage corps full authority at a fire to take charge of the street and houses or stores, and to remove the furnishings and stock if necessary from the burning building, or to cover up the same with waterproof covers. Its sole object is to save life and property. Members serve without remuneration. The corps receives no benefit from donations to the Firemen's Relief Association. Sometimes it receives money or gifts from owners of property saved.

There are two salvage companies in the City of Saint John, No. 1 having a membership of 40, and No. 2 with 24 members. New members, after receipt of application and due recommendation by an investigating committee, are selected at a regular meeting. They are sworn in by the mayor or commissioners of the city, and given a warrant after taking an oath of office to carry out the duties of the salvage corps.

The city supplies rooms for meetings of the corps. Salvage wagons are equipped with covers, ropes, squeegees, axes, a stretcher, rubber coats and hats, surgeon's kit, parade uniforms, and other necessary equipment. Each corps looks after one half of the city, helping each other when necessary. No. 1 Corps has been carrying on voluntary service for over 53 years. There are two charter members still on the rolls, not as active as when they first joined, but still taking an interest in salvage corps work. The corps also performs ambulance service.

The corps has saved thousands of dollars of property with little expense to the city. Since organization, more than 200 citizens, many of them holding prominent positions in the community, have been members of the corps, and at present there is a waiting list of citizens anxious to join. The average attendance at fires is over 70 per cent.

This Pikesville, Maryland, school had brick walls which couldn't burn, but the inside construction was wood. The arrangement of stairways was such that fire could readily spread through them from floor to floor and burn out the entire inside and contents of the building.

Questions on Overhauling — School Fire Hazards

ACCORDING to correspondence with member companies, this department is proving very popular and useful in suggesting subjects which may be discussed at company meetings. Regular use of this and other material has helped to add to the interest of meetings and make members come away with a satisfied feeling, knowing that they have added to their fund of practical information and knowledge.

The answers in these columns attempt to give in concise form the main features of the subject under discussion. Nothing here presented is to be taken as the last word on the subject. Readers are invited to send in answers to any of the questions and to propose additional subjects for discussions in future months.

The editors are not content to draw merely on their own background of experience for material for the answers. This month, for instance, material on overhauling operations is summarized from a valuable little handbook recently prepared by the Dallas, Texas, Fire Department, "The Fireman and His Job". The material on school fire hazards is taken from an analysis of over one thousand fires in schools the records of which have been assembled by the N.F.P.A. Department of Fire Record.

21

Q. What is generally meant by the fire department term "overhauling"?

A. The necessary detail work of completing operations at a fire, cleaning up, and extinguishing any remaining fire or hidden sparks without waste of water or unnecessary water damage. The first operation generally implied by the term is an examination of the structure and contents to determine what needs to be done in the way of removal of burned debris, removal of water, and a general clean-up or salvage work.

Careful overhauling is an important part of fire department work. Fires many times rekindle and do considerable damage because of careless or improper overhauling operations. Thoroughness in overhauling after a fire is one measure of the efficiency of a fire department.

The occupancy, type of construction, and extent of the fire and damage determine the exact procedure to follow in overhauling. Proper drainage of water from the building, a thorough check of damaged goods, and a careful inspection to make sure that the fire has not extended elsewhere are three necessary operations included in the term "overhauling".

22

Q. Name the principal fire hazards in school buildings.

A. Seven common causes are responsible for 78 per cent of all the fires for which the causes are known.

Known Causes	*Per Cent of Fires*
Electrical	18
Spontaneous ignition	13
Smoking-matches	12
Defective or overheated heating equipment	11
Defective or overheated chimney or flue	10
Incendiary	8
Sparks on wooden shingle roofs	6
Miscellaneous	22
	100

These causes are all common ones, and by the practice of good housekeeping and care in the use of heating and electrical equipment may be largely avoided.

Features of the construction and arrangement of school buildings are also fire hazard factors. Regardless of type of construction, buildings are

Problem Questions FOR OCTOBER

Suggested for discussion at company and department meetings this month

23

How would you locate and extinguish a fire that is concealed in a partition of a dwelling in which fire stopping has not been provided?

24

How should combustible partitions, floors, and woodwork in dwellings be protected against possible excessive heat from stoves and ranges?

Watch for the answers in the next issue of VOLUNTEER FIREMEN

filled with things that will burn. Fire will spread from one room to another and from one floor to another unless the arrangement of the interior of the building has been specially designed to prevent this spread.

Basements, where most of the fires start, should be cut off from the upper floors, and stairs should be enclosed so that fire may not readily spread from floor to floor. Stairs should be enclosed for another important reason—to keep smoke from a fire out of the stairways so that they may be used for exits. Furthermore, there should never be less than two sets of stairs from upper floors, so that if one is obstructed by fire or smoke, the other will be likely to be free long enough to allow occupants of the building to get out.

Nearly all the loss of life in school fires may be traced to defects in the arrangement of the building which permitted fires to spread and trap occupants who could not get to such exit facilities as were provided. A list of 43 school fires—not by any means a complete list—involved the loss of a total of 471 lives, most of them children. Seventy-five per cent of all school fires fortunately occur at times when the school is not occupied, or the fires would account for the loss of many more lives.

□□□□□

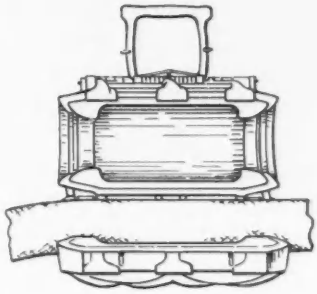
Extension Course in Fire Fighting Methods

A COURSE in modern fire fighting methods has been prepared by experienced fire authorities selected by the Massachusetts Fire Chiefs' Club in co-operation with M. Norcross Stratton, Supervisor, Massachusetts State Department of Education. The course should be attractive to volunteers as it has been prepared especially for firemen of volunteer and part-paid fire departments who have been unable to take advantage of instruction at regular fire schools, but who wish to study for promotion or to supplement their general background of experience.

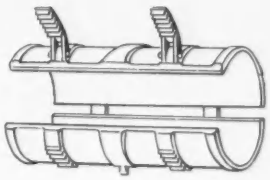
Lessons are mailed to persons taking the course. After each lesson answers to examination questions are written out. These are reviewed and corrected by an expert. Certificates are awarded for successful completion of the course.

The course is being offered in two parts of eight lessons each. The cost is $5.00 for each part to residents of Massachusetts and $8.00 for each part to persons resident outside the state. Full details of the course may be obtained from James A. Moyer, Director of University Extension, State House, Boston, Mass.

Fire Tools

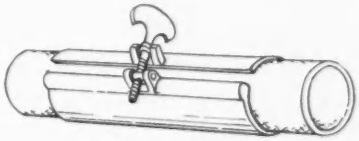


Cooper Jacket



Snap Type

Leather Jacket



Screw Type

Hose Jackets

WHEN a hose line in service develops a small leak, a hose jacket may be used to stop the flow of water and further enlargement of the opening without having to shut down the line. Four common types of jackets are shown in the illustration.

Probably the most widely used and one of the most satisfactory types is the "Cooper" jacket. To use it, the break or tear is placed so that the water will shoot away from the operator, and one side is slipped under the hose. The top part of the jacket is then clamped down to the bottom part with a shove of the operator's foot, and automatically locks the hose in place.

The "Cooper" jacket may also be used in an emergency as a universal coupling. The two hose couplings to be joined are brought together, placed on the bottom half of the jacket, and the top part is snapped shut. The jacket has a rubber lining, and when pressure is put on the hose, the hose expands and forms a watertight connection.

Other types of metal jackets are made in the form of close-fitting sleeves, hinged on one side, with a locking arrangement on the other. One locking device consists of two hinged fingers with teeth on one half of the sleeve which grip other teeth on the bottom half. Another type has a screw which is tightened by the fingers, thus drawing the two sides of the jacket together.

Then there is the leather hose jacket which may be buckled around leaking hose.

DATE	TIME	Alarm Box Telephone, Still or False	LOCATION	NAMES OF PARTIES SUSTAINING LOSS 5		BUILDING AND OCCUPANCY 6			Fires other than in Buildings. Grass, Dump, Fences, Bridges, Cars, Lumber, etc.	FIRES 8				CAUSE	HOW EXTINGUISHED 10						APPAR EQUIPM	
				Owner of Building	Occupant	No. of Stories	Brick, Stone, Concrete, Iron-Clad or Frame	Occupancy		Confined to Floor	Confined to Bldg.	Extending to Adjng Bldgs.	Extending Beyond Adjng Bldgs.		Out on Arrival	Citizens or Employees only	Automatic Sprinklers	With Chemicals	With Hydrant Streams	With Engine Streams	Chemical or Booster Line	
1	2	3	4						7					9								

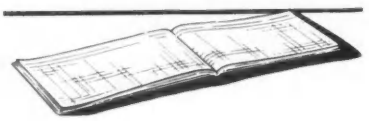
The Fire Record Journal

The Fundamental Record Book, Providing a Form in Which History of Work of Fire Department May Be Kept and Preserved

IN making preliminary reports on fires, blanks or notebooks are often used for convenience. A typical blank was illustrated in VOLUNTEER FIREMEN for August of this year. After a fire has been investigated a complete and detailed story of the circumstances may be compiled and all data regarding the fire filed under some person's name or under a street address.

These facilities for making fire reports and records all serve a useful purpose, but the fundamental record of alarms answered by the fire department is the Fire Record Journal. This sets down every alarm answered by the department according to date and time in the order the alarm was received, and embodies the essential data about each. No matter what other fire record devices may be employed, the Journal is essential as a permanent and complete record of all alarms.

The Fire Record Journal should not be confused with the Company Journal which serves a somewhat different purpose. The Company Journal serves to keep a day to day account of the activities of any one company in the department. In this is set down details of members present or absent at roll call, the testing of motors, the shifting of hose, the performance of other maintenance operations, and miscellaneous records of what the company itself does. The Fire Record Journal, on the other hand, is kept at the headquarters of the department. In a department made up of several companies, it would be the practice for each company to record in its own journal the details of what the company did in response to any alarm. In addition, it would telephone or otherwise forward to fire headquarters essential data to be entered in the Fire Record Journal.



There are hundreds of departments which can boast a set of journals covering the activities of the department for a period extending back many years. The Fire Record Journal is a permanent record of the department history and has the advantage of providing the records in a compact form. The journal books can be conveniently handled and, for protection against loss, kept in a safe or vault.

An important practical use of the Fire Record Journal is in the making of summaries of the work done by the department at monthly or yearly intervals. This enables the officers of the department to let those who support it know what work it has done. It facilitates the preparation of statistics of all sorts. Studies can be made from these statistics which are useful in determining where fire prevention work can be most effectively done and also to support the companies of the department in requests for funds for fire apparatus or fire prevention work.

Naturally it is of considerable advantage to all fire departments that their records be kept on a reasonably uniform basis as this would permit one department to compare its work and record with another. To make this possible, a standard form of fire record journal has been prepared by the National Board of Fire Underwriters. This has been used in the majority of fire departments for many years and has done much to promote the uniform preparation of fire record data.

The headings as used in the standard Fire Record Journal of the National Board are illustrated at the top of this and the opposite page. To make reproduction possible, the horizontal spaces have been somewhat compressed. The journal itself opens up to give a space for fire records extending across two facing pages, a

APPARATUS AND EQUIPMENT USED 11					BUILDING 12				CONTENTS 13				TOTALS BUILDINGS AND CONTENTS 14				Losses on Buildings and Contents in which the Fire originated 15	Exposure Losses—i.e., Losses on Buildings and Contents in which the Fire did not originate 16	REMARKS 17
Extinguishers Chemical or Booster Line	No. Lines Hose Laid	No. Feet Hose Laid	No. Feet Ladder Used	Engine Worked Hours	Total Value	Insurance on Buildings	Loss—Insured and Uninsured	Insurance Loss	Total Value Involved	Insurance on Contents	Loss—Insured and Uninsured	Insurance Loss	Value of Property Involved	Total Amount of Insurance	Total Loss	Total Insurance Loss			

total of 38 inches. Each page is 10½ inches high and there are 30 lines to a page.

In the great majority of alarms a single line provides space enough to record all the necessary data. Entries are made beginning at the left with the date and time and extending completely across both pages, filling in the data called for by each column heading. In making entries it will be found convenient to start new pages for records each month, especially if the number of alarms answered per month is more than fifteen or twenty. In any case, a new page should be started each new year. This leaves spaces for summarizing the data at the end of each column.

Most of the headings as given in the journal are self-explanatory, but in certain cases space at the head of the column does not permit a wholly adequate description of the data called for.

Column 3 is for recording the kind of alarm or how it was received. If the town has a fire alarm system and the alarm was received over it, the number of the box pulled is recorded. If the alarm was received by telephone, "Tel." is written in. In many departments telephone alarms are referred to as "still" alarms. In different communities the term "Still Alarm" has come to mean different things so that the best recommended practice today is to indicate so far as possible in this column just how the alarm was received. If the alarm is a false alarm, it is so noted in this column. Some departments make a practice of writing in false alarms in red ink. Notes on the disposition of the false alarm may be made in the "Remarks" column.

Where several buildings or several occupants are involved, it may be found convenient to list the names of owners and occupants one under the other taking a line for each so that loss data, for which columns are provided on the opposite page, may be set down opposite each name. There are only a relatively small number of fires where the use of additional lines would be necessary, and as there is plenty of space in the average journal there is nothing to be gained by attempting to crowd this information.

The description of the building should be given so as to accurately describe the general type. The heading given in Column 6 for this is only suggestive. In general, it will be found desirable to state carefully into which of the following three principal classes of building construction the building involved should be put: (a) fire resistive, which implies fire-resistive construction in both walls and floors; (b) ordinary construction, which usually consists of brick or stone walls with wooden floors and interior construction (brick-joisted buildings are the commonest examples of this class); (c) frame buildings (all wood). Buildings with concrete block walls and iron-clad buildings are special types, usually few in number, which are classified separately.

The occupancy column is to describe the use to which the building is put, such as, for instance, dwelling, grocery store, or barn.

Space for putting down loss record data both for buildings and for contents is given in the columns on the right hand page together with a place for summing these losses up. Where possible, valuation, insurance and fire loss figures should be obtained from the account books of the owner, from the insurance adjuster, or from local insurance representatives, or if none of these sources can furnish the information, estimates may have to be made. In addition to the loss which is covered by insurance, an estimate should also be made of any losses not covered by insurance. Where several owners or occupants are involved, a line should be taken for each and the total for the fire added up in a sub-total. This practice automatically furnishes data to be carried out in Columns 15 and 16 to determine exposure losses.

Fire Journal Books May Be Purchased

It would be expensive for individual fire departments to have fire record journals ruled, printed and bound locally. The National Board of Fire Underwriters, however, has arranged to furnish their recommended journal to any fire department at the nominal cost of $1 a copy. The journal is a substantially bound book with pages 19x10½ inches. One copy has enough pages to take care of the needs of a department in a moderate sized community for as much as five years or more. Departments wishing to purchase copies of the journal should order direct from the National Board of Fire Underwriters, 85 John St., New York, N.Y.

Volunteer Firemen's Group Accident Policy

A special policy called a Volunteer Firemen's Group Accident Insurance Policy has been made available to Volunteer Departments by the Hartford Accident and Indemnity Company—one of the large, strong, old-line casualty companies. This policy pays if member firemen are injured while on duty. It pays for loss of time from regular occupation and substantial amounts for death and dismemberment. Your Department should have this protection. Mail the following coupon today. It will cost you nothing to get the full details regarding this valuable insurance contract.

You won't have to "pass the hat" if you have this policy

HARTFORD ACCIDENT AND INDEMNITY COMPANY

of HARTFORD, CONN.

Agents Everywhere

This coupon may save your members thousands of dollars

HARTFORD ACCIDENT AND INDEMNITY COMPANY
Hartford, Connecticut

Send information on Volunteer Firemen's Group Accident Policy.

Name.....

Address.....

Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association

Published by the National Fire Protection Association, a voluntary non-profit organization, 60 Batterymarch Street, Boston, Massachusetts, U.S.A. (Copyright 1935.)

Volume 2 **October, 1935** Number 10

Reports of Fire Schools or Colleges In his report of the Eleventh Annual Fire College held in Illinois in June, Mr. L. H. Provine, director of the college, states that in future fire colleges the program must continue to emphasize work for the volunteer fireman as well as for the paid fireman. He suggests that instruction be given in organized evolutions at the drill tower for volunteer departments in the morning and for paid departments in the afternoon, each of the four days of the school.

This year, at the Illinois school, on one day the men were divided up into four classes, depending upon which one they were the most interested in. One-third of the enrollment selected the volunteer section. The other three sections were for engineers, inspectors, and instructors.

Firemen from 131 towns in Illinois attended. It is interesting to note that 80 per cent of these towns have populations under 15,000, and 54 per cent under 5,000. In other words, the smaller towns having volunteer and part-paid departments out-represented the larger ones with paid departments. The total enrollment of the college was 412.

We wish that all our members who are in close contact with fire schools and colleges would send us a report or a letter telling of the attendance and interesting happenings at schools they attend or help supervise. We already get reports of most of the larger schools that print or mimeograph them, but from many of the regional or county schools we do not hear.

In the January or February issue each year we publish a list of the schools held in each state during the past year. We give the town in which it was held, the dates, and the dates or plans for schools to be held in the coming year. We therefore ask that our readers keep us informed on schools in their territories.

Ritual for a Deceased Fireman George B. Abbott of the Hamburg, New York, Volunteer Fire Department (Member N.F.P.A.), has prepared a ritual suggested as appropriate for the burial service for a deceased volunteer fireman. It was adopted by the Firemen's Association of the State of New York at their annual convention in August. Mr. Abbott would be glad to send a copy to anyone interested.

New Members and Renewals Since the last issue of VOLUNTEER FIREMEN seven companies or departments with a total of 137 men have affiliated with the Volunteer Firemen's Section of the N.F.P.A. In addition, 17 departments with 346 men have sent in their renewal applications and membership dues. With the renewals come numerous enthusiastic letters. Space permits the publication of only a few of the many received. Typical comments are given on the next page.

Westport Volunteer Fire Company, Westport, Massachusetts.

North St. Paul Fire Department, North St. Paul, Minnesota.

Haddon Heights Fire Department, Haddon Heights, New Jersey.

Nassau Chemical and Hose Company No. 1, Valley Stream, New York.

Tennessee Valley Authority, Norris, Tennessee.

Eastville Fire Department, Eastville, Virginia.

Middleton Fire Company No. 1, Middleton, Wisconsin.

Boosts . . .

"I WISH to compliment you on the September issue of the VOLUNTEER FIREMEN. I think this is one of the very finest and most useful numbers published so far. It's just too bad that this journal does not get into the hands of every fireman in the country. Surely if everyone knew of the valuable information contained therein each month, they would not miss it at several times the present nominal cost."—*Frank Zeller, Chief, Terra Alta Volunteer Fire Dept., Inc., Terra Alta, West Virginia.*

"WE have a fine bunch of boys, and although we lack sufficient equipment, their hearts make up for it. We like your most interesting and wonderful little journal. I get an awful lot of good out of it."—*W. D. Bishop, Chief, Volunteer Fire Dept., Duchesne, Utah.*

"OUR department finds your magazine and other material most interesting, and as long as I am in charge we will continue our membership."—*Geo. P. Ryder, Chief, St. Stephen Fire Dept., St. Stephen, New Brunswick.*

"WE take great pleasure in renewing our membership. We want to express our satisfaction for all the valuable information contained in your publications. We sincerely hope that your association continues to grow, thereby enabling you to spread your services over a larger area."—*Joseph E. Salomone, Secretary, Eagle Hook and Ladder Co., Metuchen, New Jersey.*

"THOUSANDS of firemen have taken advantage of the opportunity to join the Volunteer Firemen's Section. Wouldn't it be a good plan to discuss joining at your next meeting? I am certain that when your department joins, the action will never be regretted."—*From the New Mexico State Firemen's Association News Letter; Theo. A. Rosenwald, Secretary, Albuquerque, New Mexico.*

This

M·S·A HELMET

has "everything" a fireman's hat should have. . .

Molded in one-piece from durable, highly fracture-resistant micarta, heavily reinforced at crown and brim edge . . . non-conductive to electricity and permanently non-softening from water, chemicals or perspiration . . . self-ventilated, cool—unusually light in weight, snug-fitting and comfortable . . . equipped with detachable zipper-operated ear-lugs; a chin strap designed to simplify donning the helmet over a gas mask, and other superior features . . . always smart and trim in appearance—the new M.S.A. Fireman's Helmet truly answers every demand of fire-fighting service. ¶Write for the new Fireman's Helmet Bulletin FX-1.

MINE SAFETY APPLIANCES CO.

Braddock, Thomas and Meade Streets
Pittsburgh Penna.

District Representatives in Principal Cities

Membership Plan

Volunteer Firemen's Section, National Fire Protection Association

WHERE twenty or more firemen in a volunteer company or department affiliate with the Volunteer Firemen's Section the cost is 50 cents a year *per man.* Each fireman will receive one copy of VOLUNTEER FIREMEN, the monthly journal of the Volunteer Firemen's Section, mailed regularly to his home address. The company or department automatically becomes a member of the National Fire Protection Association and is entitled to full privileges of membership. All the literature regularly issued to N.F.P.A. members is mailed to headquarters of the company or department.

Membership may be applied for by one member of the company or department collecting 50 cents for each of the 20 or more members and making a single remittance for the group, or the company or department may take a membership for its men and make a single remittance from the company or department treasury.

Companies With Less Than 20 Members

Because of the large amount of material mailed to members, not less than $10.00 can be accepted from any company or department for membership dues. In the case of companies or departments with less than twenty men this means that the cost divided among them will be slightly higher per man. Of course, some such companies or departments may prefer to make a single remittance of $10.00 from the company or department treasury. In other cases a few interested citizens, not members of the company or department, may be glad to contribute 50 cents apiece to make up the required minimum of twenty, so that the members may secure the rate of 50 cents per man.

These companies or departments have full privileges of N.F.P.A. membership as above, and each member receives the monthly magazine, VOLUNTEER FIREMEN, at his home.

Shuredry
SALVAGE COVERS
Reduce
WATER DAMAGE & INSURANCE RATES
SHUREDRY is the cover that fire chiefs all over the country have endorsed for superior service.
Made of our special process chemically treated canvas they resist both heat and cold. SHUREDRY covers will not crack or split on your storage shelves — easy to handle — give better service.
Address our plant nearest you for full information and prices.
Fulton Bag & Cotton Mills
Manufacturers Since 1870
ATLANTA ST. LOUIS DALLAS
MINNEAPOLIS BROOKLYN NEW ORLEANS KANSAS CITY, MO.

Can You Use $10.00?

If You Can, Submit Your Story in Pyrene Letter Contest—Cash Winners This Month

YOU do not have to be a member of an active fire department for long before you can testify from actual personal observation as to the value of fire extinguishers. Not few but many times the fact that someone has taken the trouble to equip himself with an extinguisher has made it possible for him to save destruction of valuable property and spare someone painful injury or death by fire. The stories of these cases do not have to be novel or involve trick circumstances to be worth recording in these columns for the lessons they teach.

You are missing a real opportunity for a cash prize if you are not submitting your fire fighting stories in this contest. Just put on paper how an approved fire extinguisher of any make has been used to save life or property and get in line for next month's awards offered in this contest co-operatively by the Pyrene Manufacturing Company of Newark, N.J., and VOLUNTEER FIREMEN.

FIRST PRIZE—$10.00

FRED HORNING, JR., *Chief*,
Fire Department, Owasco, N.Y.

County Home Saved by Owner

"One night at midnight about two weeks ago a family seven miles out in the country awoke to find their home filled with smoke, and a side-wall and ceiling ablaze in the kitchen. The flames originated in some clothing hanging back of a kitchen coal range which became overheated.

"The man of the house was fortunate in having a 2½-gallon soda-acid fire extinguisher in his home. After calling the fire department he put out the fire with the one extinguisher. The damage was confined to the kitchen.

"There is no question but that this extinguisher saved the house because the fire had a good start when it was discovered. and the house was situated on a steep hill about three hundred feet from the road. The extinguisher was purchased by this man ten years ago and it had never been used until this fire.

"The fire department inspected everything carefully for any hidden fire, but the fire was completely out. To show his gratitude for the prompt service of the fire company, this man donated $15 towards the firemen's pension fund."

SECOND PRIZE—$3.00

JAMES SPEARS, *Secretary*,
New Waterford Fire Department
Cape Breton, Nova Scotia.

Extinguisher Saves New Building

"On the afternoon of August 22 the alarm was sounded, ca'ling out our volunteer fire department. Upon arriving we discovered that a new building which was under construction was on fire.

"The fire started in some shavings in the basement. It had a good start when it was noticed by a neighbor.

"This neighbor turned in the alarm and then used a 2½-gallon soda-acid extinguisher on the blaze. He kept this extinguisher in his home. Everything being so dry, we were thankful that the extinguisher saved this new building.

"This was the first time that several of our members had ever seen an extinguisher of this kind handle a fire that had gained such a headway. Several of the firemen intend to get extinguishers for their own homes as a result of this experience!"

THIRD PRIZE—$2.00

GLENN H. CROSS,
Volunteer Fire Dept., Inc., Parsons, W. Va.

Valuable Lesson Learned

"About four o'clock one morning three years ago our little city was awakened by the fire siren. We found that the fire was in the finest building on the main street which was a three-story stone structure housing many business places.

"We had no fire fighting equipment other than fire hose. The fire was concealed in an old e'evator shaft. Without a doubt it could have been extinguished with a hand extinguisher before it spread, but since we had no extinguishers, we lost the entire structure.

"Since that time we have built up a well-organized fire department equipped with fire apparatus and chemicals. Now, in contrast, we can tell a different story.

"A short time ago we were called to the store that adjoined the one that was lost before. A fire started under the floor of the store by a cigarette or match being dropped in the air vent where refuse had collected. It was easily extinguished with a carbon tetrachloride extinguisher from our truck. We saved the merchant the usual tear-up of his store, and probably saved the entire building—thanks to the extinguisher."

HONORABLE MENTION

HARRY BEASLEY, *Chief*,
Fire Department, Chrisney, Ind.

H. H. ROWEN,
Hose Company No. 1, Stanhope, N. J.

J. A. NOVESKY, *Chief*,
Volunteer Fire Department, Grafton, Ohio.

Rules . . .

PYRENE PRIZE LETTER CONTEST

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where any approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experiences.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 15th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letter to Pyrene Prize Letter Contest, National Fire Protection Association, 50 Batterymarch Street, Boston, Mass.

THE NEW SUPER CHAMPION 500★—750
America's Model Fire Apparatus

America's Model Fire Apparatus

There's only one word for it—Revolutionary. Remember that statement as time goes by—and other apparatus begins to be patterned after this new Champion. For here is Fire Apparatus so advanced, so different, so much better, it cannot help influencing the future design of other apparatus. Read what this sensational Champion offers you—then enjoy the sensation of commanding it.

Nothing skimped or skipped. Nothing forgotten or sacrificed. Every feature you need for every situation you meet.

Precision engineering methods and only the finest materials are used in building the Super Champion.

The new Super Champion because of its adaptability to city and rural conditions is always ready to fight fire at the right time and in the right way.

When fighting a fire every minute counts. The Champion gets into action fast and will carry on its task hour after hour without pause.

CHAMPION PUMPS SOLD SEPARATELY FOR ALL CHASSIS

☛Any pump easily attached to any OLD or NEW chassis or Fire Apparatus Truck

We can supply power drive attachments for mounting the Champion on any Fire Apparatus or chassis now in service. If you have an old model pumper you can replace the worn out Rotary pump that has seen better days and only add 175 lbs., the weight of a Champion. When ordering specify make, model, motor, and serial number of chassis. ☛Or if numbers are ground off so state and we'll send you simplified questionnaire, reply to which gives us sufficient information to design power drive. So simple a mechanic can easily follow the instructions and attach to any chassis in a few hours' time. We would like to have you try our Champion Pump and give it any test you want for 30 days. If it is not satisfactory in every way, return it and we will pay the freight charges both ways.

☛Champion Fire Pumps have passed ALL test requirements of the National Board of Fire Underwriters. ☛They are recognized and accepted by the Actuarial Inspection Bureaus of ALL States.

Price includes Front Mounting Brackets, 300 lb. Pressure Gauge, Automatic Safety Primer, Shut-Off Valve, Brass Caps, with plugged inlet and outlet for booster tank connections, auxiliary motor cooling.

No. F—300-Gallon Capacity. ☛Net price to Fire Departments, complete with all the above equipment, f.o.b. Chicago..... **$269**

No. F—400-Gallon Capacity. ☛Net price to Fire Departments, complete with all the above equipment, f.o.b. Chicago..... **$315**
(Siamese Connections, Booster Line Valves are extra, but cost little.)

No. F—500-750-Gallon Capacity. ☛Net price to Fire Departments, complete with all the above equipment AND Siamese Outlets, Booster Valves, etc..... **$425**

NOTE: With perfect ease any of the above pumps will exceed ratings by 50 to 92 G.P.M. And from hydrants will throw 100 to 250 G.P.M. more than rating.

THE NEW SUPER CHAMPION 500★750

Incomparable Efficiency!
Astounding Capacity!
Marvelous Stamina!

Direct Drive—No Gears
Multiple Disc Friction Cl
Splined Drive Shaft of Chrome Nickel Steel
Two Universal Joints in t
Floating Power Drive
Automatic Safety Primer

☛Price includes CHAMPION 500-750-Gallon High Pressure Underwriter Pump, Ford V-8 Chassis and the following:

Steel Body	Fresnel Lights
200-Gal. Tank	Insignia Plates
Hose Basket	Wind Shield
Hose Reel	Slatted Hose Bed
Flood Lights	Platform Step

Powerful Searchlight
Chromium Plating
Electric Siren
Fire Axe—Pike Pole
Dual Rear Wheel Chassis

☛ **With Everything**

READY FOR SERVICE
Except your hose and ladders which are slightly extra

$1995

Built for West Hartford, Conn., Fire Dept. and for Many Others

W. S. DARLEY & CO.

Built on Character and Fair Dealing Since 1908

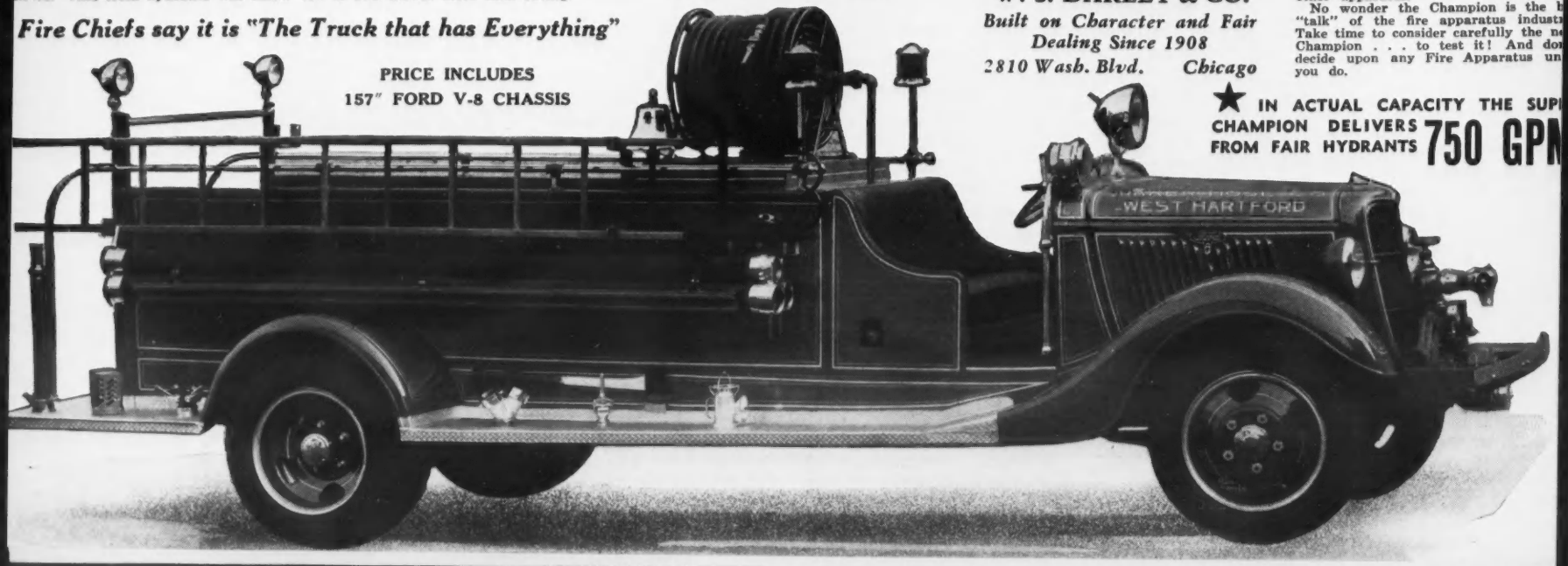
2810 Wash. Blvd. Chicago

☛*Invest Your Fi*
Appropriation Whe
It Will Buy a Big
Premium of Safet
and Satisfaction
Invest in a Champio

DARLEY today, with a
plified capital, NO bank loa
NO burdensome salesmen, N
excessive plant valuations,
operating on the thriftiest bas
possible!
That is one reason why you can g
Champion Apparatus at a saving
much money. And you get the ben
fit of all that Darley has learned
27 years of uncompromising public ser
ice when you invest your funds in a ne
Champion Fire Apparatus.
What's more! The Champion is an e
pensively built Fire Engine with featur
of design and construction found in
other apparatus.
No wonder the Champion is the b
"talk" of the fire apparatus industr
Take time to consider carefully the ne
Champion . . . to test it! And don
decide upon any Fire Apparatus un
you do.

Fire Chiefs say it is "The Truck that has Everything"

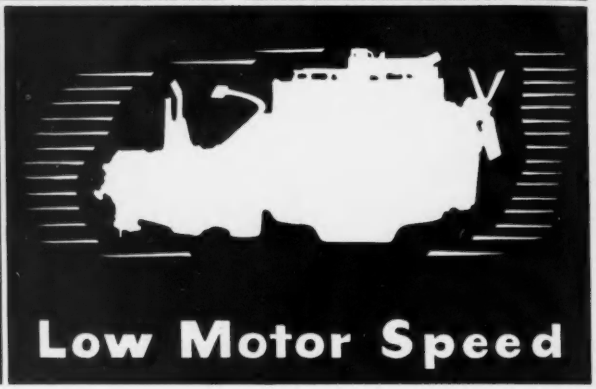
PRICE INCLUDES
157" FORD V-8 CHASSIS



★ **IN ACTUAL CAPACITY THE SUP**
CHAMPION DELIVERS FROM FAIR HYDRANTS 750 GPM

GEARED DRIVE. . . .Long Motor Life

High Pump Speed



Low Motor Speed

Even When Pumping at 250 Pounds Pressure Your Truck Motor is UNDER NO STRAIN

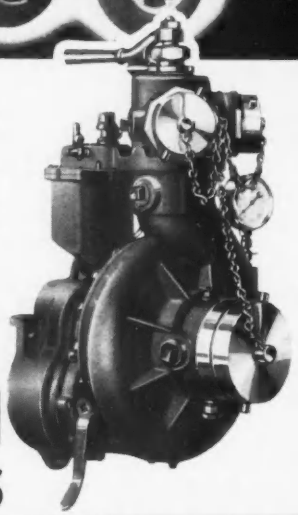
Barton U-Type Fire Pumps incorporate the finest in hydraulic engineering. All the way through these pumps are A-1. Take, for example, the Barton Geared Drive (part of the pump) — ***an exclusive feature.*** Using this over-drive a Barton Pump operates at approximately TWICE motor speed.

Thus you can turn your Barton Pump wide open — get every possible gallon of water and every ounce of pressure — YET THE MOTOR LOAFS ALONG AT MODERATE SPEED.

Think what this means over the years! A Barton Pump is designed for its maximum speeds. It is relatively simple with no close clearances. You can run it hour after hour at top capacity without appreciable wear or tear.

But your truck motor is different. You can't crowd it all the time. Any truck motor is complicated. ***It will NOT stand excessive speeds indefinitely without serious trouble — without expensive overhauls.***

Like thousands of chiefs have done before you, you exercise good judgment WHEN YOU SPECIFY A BARTON FIRE PUMP.



BARTON
FIRE PUMPS

UNDERWRITERS' TESTED..All Sizes

A Barton Fire Pump can be front-mounted on practically any standard truck. It is driven from the motor crankshaft by means of a patented power take-off of unfailing design. INSTALLATION REQUIRES NO CHASSIS CHANGE — THAT'S WHAT SAVES THE MONEY.

All Barton Pumps are automatically primed — all will pump clean or dirty water. All U-Type Barton Pumps are Underwriters' Tested, and we have other types at still lower prices. Write for FREE Bulletin 75.

AMERICAN STEAM PUMP COMPANY
BATTLE CREEK, MICHIGAN ***PUMPS AND PUMPS ONLY SINCE 1873***

PRINTED IN U.S.A.